

**CCE CALIBRATION WITH AN ARRAY OF CALIBRATION PROBES
INTERLEAVED WITH THE ARRAY ANTENNA**

ABSTRACT OF THE DISCLOSURE

One embodiment of the invention relates to an antenna system, which comprises an antenna array and a calibration system adapted to calibrate the antenna array. The calibration system can calibrate the antenna array in transmit mode, in receive mode, or in both transmit and receive mode. The antenna array includes a plurality of antenna elements and an antenna beamforming system, and the calibration system includes a plurality of calibration probes integrated with the plurality of antenna elements. The calibration probes may be transmit calibration probes, receive calibration probes, or both. In addition, the calibration system includes a calibration processing system adapted to calibrate the antenna array utilizing the interleaved calibration probes. In one embodiment, the calibration processing systems calibrates the antenna array by performing control circuit encoding (CCE) calibration on the antenna array.

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